

Date: Monday, 18/08/2008 10:21:46 AM  
 User: Julie Lecocq

## Process Sheet

|                                  |  |                         |                  |
|----------------------------------|--|-------------------------|------------------|
| <b>Customer</b>                  | : CU-DAR001 Dart Helicopters Services                                      | <b>Drawing Name</b>     | : STRUT ASSEMBLY |
| <b>Job Number</b>                | : 41270  |                         |                  |
| <b>Estimate Number</b>           | : 10808  |                         |                  |
| <b>P.O. Number</b>               | :  | <b>Part Number</b>      | : D3180041       |
| <b>This Issue</b>                | : 18/08/2008   | <b>S.O. No.</b>         | :                |
| <b>Prsht Rev.</b>                | : NC   | <b>Drawing Number</b>   | : D3180 REV B    |
| <b>First Issue</b>               | : //   | <b>Project Number</b>   | : N/A            |
| <b>Previous Run</b>              | : 37505  | <b>Drawing Revision</b> | : B              |
|                                  | <b>Type</b>  | <b>Material</b>         | :                |
|                                  | : SMALL /MED FAB   | <b>Due Date</b>         | : 21/08/2008     |
| <b>Written By</b>                | :  | <b>Qty:</b>             | 2 Um: Each       |
| <b>Checked &amp; Approved By</b> | : <u>JUL 08.8.18</u>   |                         |                  |
| <b>Comment</b>                   | : Est Rev:A 03.01.27 New issue KJ/RF<br>Est Rev:B 07-06-28 Asper Rev B JLM |                         |                  |

## Additional Product

Job Number:



|                |                              |                      |
|----------------|------------------------------|----------------------|
| <b>Seq. #:</b> | <b>Machine Or Operation:</b> | <b>Description :</b> |
|----------------|------------------------------|----------------------|

|     |                |                          |
|-----|----------------|--------------------------|
| 1.0 | M304TR0750W065 | 304 RD Tube .750 x .065W |
|-----|----------------|--------------------------|



**Comment:** Qty.: 3.7625 f(s)/Unit Total : 7.5249 f(s)  
 304/316 Seamless Tubing with 3/4" O.D. x 0.065" wall  
 (M304TR0.750W0.065)  
 Batch: ~~M104565~~ M104565

S/S 08/09/04

②

|     |          |          |
|-----|----------|----------|
| 2.0 | BRAKE NC | NC BRAKE |
|-----|----------|----------|

**Comment:** NC BRAKE

1-Punch 304/316 Seamless Tubing with 3/4" O.D. x 0.049" wall to length as per Dwg D3180 using DT8313  
 Ensure rotate and punch one end only as per view B-B as per Dwg. D3180

S/S 08/09/04

②

|     |             |                               |
|-----|-------------|-------------------------------|
| 3.0 | SMALL FAB 1 | SMALL & MEDIUM FAB RESOURCE 1 |
|-----|-------------|-------------------------------|

**Comment:** SMALL & MEDIUM FAB RESOURCE 1

1-Drill Ø0.203" as per Dwg D3180

2-Bend one side only as per Dwg D3180 Identify as D3180-1

3-Deburr edges

FF 08/10/08

②

|     |     |                              |
|-----|-----|------------------------------|
| 4.0 | QC5 | INSPECT WORK TO CURRENT STEP |
|-----|-----|------------------------------|

**Comment:** INSPECT WORK TO CURRENT STEP

S 08/10/08

②

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

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Drawing Name: STRUT ASSEMBLY

Job Number: 41270

Part Number: D3180041

Job Number:



Seq. #: Machine Or Operation: Description :

5.0 POWDER COATING POWDER COATING



M 109152



(2X)

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M-12

08/10/09

6.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

F-2

08/10/09

(2)

7.0 D2022101 Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D2022-101 Spacer B 39880

SB

08/10/09

(2)

8.0 D26906 Lanyard Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2690-6 Lanyard 41550

SB

08/10/09

(2)

9.0 A1449 Grommet



Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D3180-1(ref) Strut

1 A1449 Grommet M 1487

SB

08/10/09

2

10.0 AN960JD10 Washer



Comment: Qty.: 3.0000 Each(s)/Unit Total: 6.0000 Each(s)

Pick:

Qty Part Number Description Batch

3 AN960JD10 Washer M 129059

SB

08/10/09

(2)

**Dart Aerospace Ltd**

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

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## Process Sheet

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Drawing Name: STRUT ASSEMBLY

Job Number: 41270

Part Number: D3180041

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

BLRS001

Pip Pin



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 BLRS-001

Pip Pin

M 104 700

JB

08/10/09 (2)

12.0

MS21042L3

Nut



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 MS21042L3

Nut (or -3)

M 108 701

JB

08/10/09 2

13.0

MS27039110

Screw



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 MS27039-1-10 Screw

18836

JB

08/10/09

(2)

14.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Assemble as per Dwg D3180

FF

08/10/09

(2)

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/10/09

(2)

16.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

P-Store 9

(2)

**Dart Aerospace Ltd**

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

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Drawing Name: STRUT ASSEMBLY

Job Number: 41270

Part Number: D3180041

Job Number:



Seq. #:

Machine Or Operation:

Description :

17.0

QC21

FINAL INSPECTION/W/O RELEASE



08/10/10 *[Signature]*

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



MF 08-10-09

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

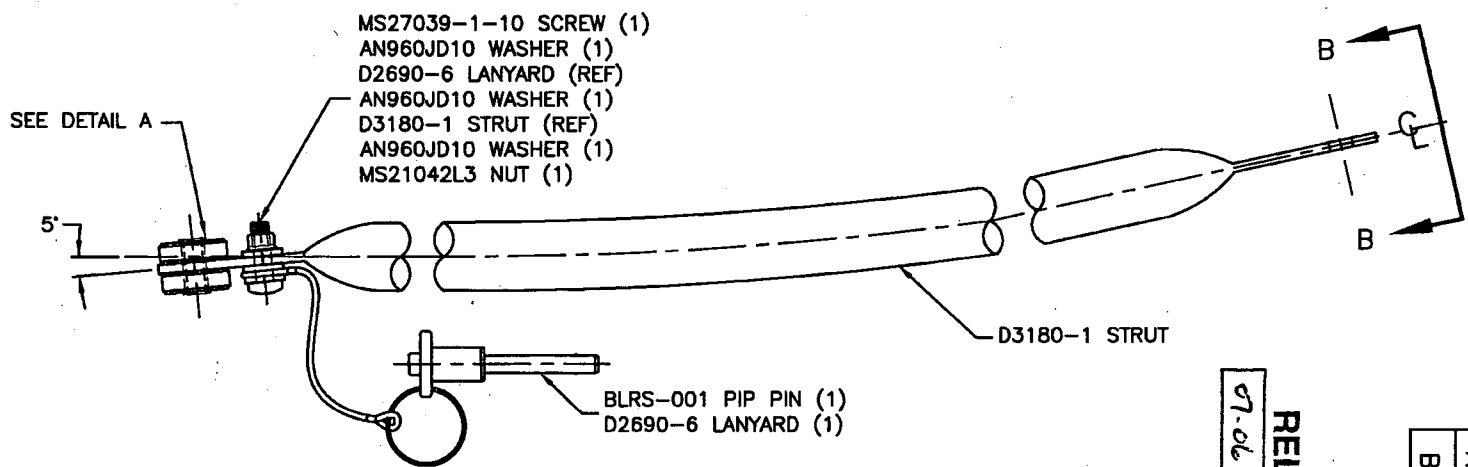
NOTE: Date & initial all entries



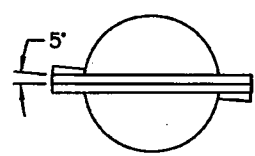


| DESIGN           | DRAWN BY                | DART AEROSPACE LTD<br>HAMKESBURT, ONTARIO, CANADA |              |
|------------------|-------------------------|---|--------------|
| 4                | SE                      | DRAWING NO.                                       | REV. B       |
| CHECKED<br>CE    | APPROVED<br>SE          | D3180   | SHEET 1 OF 2 |
| DATE<br>07.05.23 | TITLE<br>STRUT ASSEMBLY | DATE<br>03.01.06                                  | SCALE<br>1:2 |
| A                | 03.01.06                | NEW ISSUE   |              |
| B                | 07.05.23                | CURVE ADDED                                       |              |

RELEASED  
07.06.08

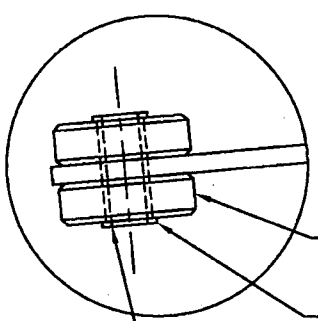


**D3180-041 STRUT ASSEMBLY**



**VIEW B-B**  
SCALE 1:1

| QTY  | PART NUMBER  | DESCRIPTION    |
|------|--------------|----------------|
| -041 |              |                |
| X    | D3180-041    | STRUT ASSEMBLY |
| 1    | D3180-1      | STRUT          |
| 1    | D2690-6      | LANYARD        |
| 2    | D2022-101    | SPACERS        |
| 3    | AN960JD10    | WASHER         |
| 1    | MS27039-1-10 | SCREW          |
| 1    | BLRS-001     | PIP PIN        |
| 1    | MS21042L3    | NUT            |
| 1    | A1449        | GROMMET        |

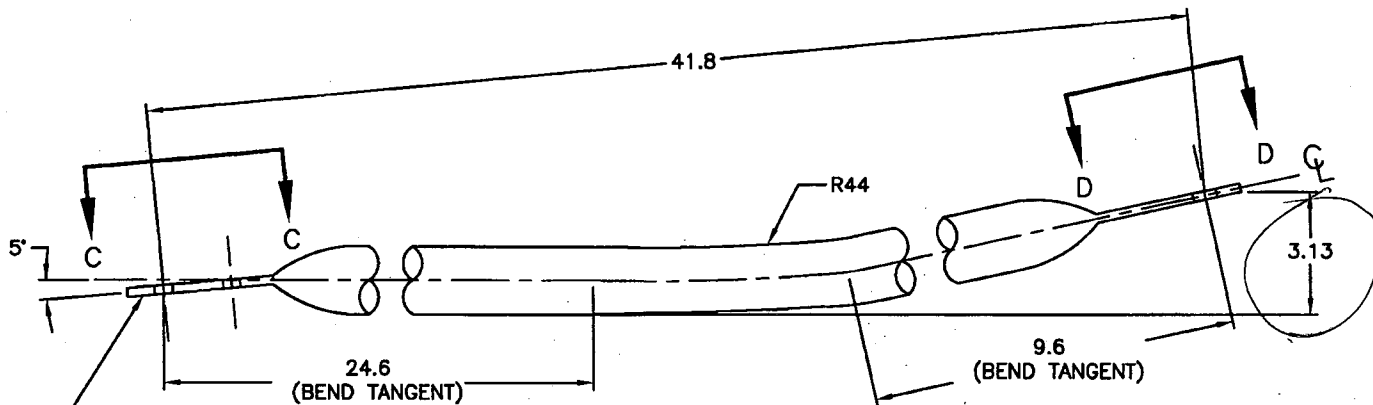


**DETAIL A**  
SCALE 1:1

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 41270

# DART

|          |          |                    |              |
|----------|----------|--------------------|--------------|
| DESIGN   | DRAWN BY | DART AEROSPACE LTD |              |
| CHECKED  | APPROVED | DRAWING NO.        | REV. B       |
| DATE     |          | D3180              | SHEET 2 OF 2 |
| 07.05.23 |          | TITLE              | SCALE        |
|          |          | STRUT ASSEMBLY     | 1:2          |



## D3180-1 STRUT

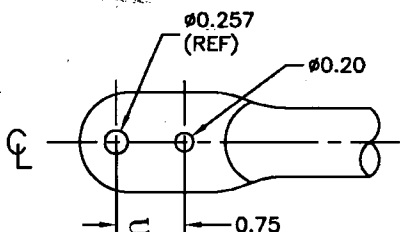
USE PUNCH DT8117  
BOTH ENDS  
(DIMS PER SPEC. CONTROL DWG D2638)

RELEASED

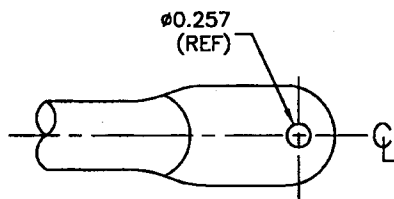
07.06.23

## NOTES

- 1) MATERIAL: AISI 304/316/318 SS TUBE,  
Ø0.75 X 0.065 WALL  
(REF. DART SPEC M304TR0.750W.065)
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART  
QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS  
OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 6) IDENTIFY WITH PART P/N "D3180-041" USING  
FINE POINT PERMANENT INK MARKER



UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 412372



## VIEW D-D